

Interview Summary	Application No. 10/606,750	Applicant(s) TODA ET AL.	
	Examiner Janis L. Dote	Art Unit 1756	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Janis L. Dote. (3) _____
 (2) Ms. K. Grueneberg (Reg. No. 47,297). (4) _____

Date of Interview: 06 April 2005.

Type: a) ☐ Telephonic b) ☐ Video Conference
 c) ☒ Personal [copy given to: 1) ☐ applicant 2) ☒ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
 If Yes, brief description: _____

Claim(s) discussed: 1-23.

Identification of prior art discussed: Yang and Nukuda.

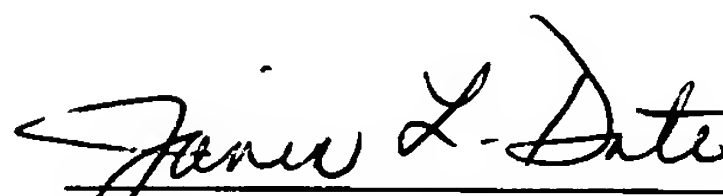
Agreement with respect to the claims f) ☐ was reached. g) ☐ was not reached. h) ☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: see attached discussion and applicants' proposal.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


 Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Art Unit: 1756

Discussed proposed amendments to the specification and to claims 9, 19, and 23 to overcome the objections to the specification and rejections under 35 U.S.C. 112, second paragraph, set forth in the office action mailed on Jan. 25, 2005, paragraphs 6, 7, and 10.

Discussed the prior art rejections over Yang and the rejections over Nukuda. The examiner noted that claim 1 merely recites the presence of "a charge generation material," which does not exclude the Yang titanyl phthalocyanine or the Nukuda titanyl phthalocyanine. Nor does not claim language "a titanyl phthalocyanine" in claim 3 exclude the prior art titanyl phthalocyanine. The examiner also noted that claims 4-6 were not rejected over Nukuda. See the office action mailed on Jan. 25, 2005, paragraph 18.

FOR DISCUSSION PURPOSES ONLY

1) reference characters 22 and 23 of Figure 10 are a rotating shaft of the charger (specification at page 58, line 24) and a charging area of the charger (page 58, lines 16, 17)

2) Claim 5: Applicants will amend the spec. “a lowest angle peak is present at an angle of $7.3^{\circ} \pm 0.2^{\circ}$, and there is no peak between the lowest angle peak and 9.4° ”, (page 6, lines 15-19, of the specification)

3) Claims 9, 19 and 23 will recite proper Markush language

4) Yang et al and Takaya et al do not provide a motivation for the combination of the charge generation material having an average particle diameter less than a roughness of a surface of either the electroconductive substrate or the intermediate layer and a charge transport layer formed using a non-halogenated solvent.

Further, there is no disclosure in these references that agglomeration of the charge generation layer can be avoided as disclosed at pages 17 and 18 of the specification.

There is also no disclosure of the superior results obtained in the Examples of the present invention. See pages 82-84 of the specification.

In addition, the Examiner has not provided a references showing a charge generation material having an average particle diameter less than a roughness of a surface of the electroconductive substrate.

The titanyl phthalocyanine (TiOPc) of the present invention is different from that of Yang et al. TiOPc of Yang et al is **ammonia modified TiOPc**.

Yang et al appears to distinguish from US 4,898,799 cited during the prosecution of Yang et al. The ‘799 patent has TiOPc and not ammonia modified TiOPc.

5) Niimi, Nukuda et al and Takaya et al, fail to disclose or suggest the combination of the charge generation material having an average particle diameter less than a roughness of a surface of either the electroconductive substrate or the intermediate layer and a charge transport layer formed using a non-halogenated solvent.

The **alumina filler** of Niimi **does not have to be α -alumina** as asserted by the Examiner based on the specific resistivity. In other words, alumina can have a specific resistivity in the order of $2.5 \times 10^{12} \Omega \text{ cm}$ and not be α -alumina.

Also, the **XRPD patterns of the titanyl phthalocyanine** of the present invention are different from those of Nukuda et al. TiOPc of Nukuda et al is TiOPc crystal

including sulfuric acid. This causes a problem because the charging ability of the resultant photoreceptor deteriorates.

Compare Fig. 15 of application and Nukuda et al to prove difference of TiOPc:

Fig. 15: mixture of TiOPc (one having peak at 7.3 and second having peak at 7.5)

Nukuda et al only peak at 7.3

Claim 5 amendment?

6) all claims were commonly owned at the time of invention by Ricoh Company Limited

7) will deal with the provisional double patenting rejections once the claims have been indicated as allowable over the prior art of record, if only remaining rejection: withdraw and make final in other case, MPEP 822.01

8) Background:

When a photoreceptor is prepared using a solvent other than halogen-containing solvents in view of environmental protection, the resultant photoreceptor has poor electrostatic properties. As a result of the present inventor's investigation, the following has been discovered. When a charge transport layer (CTL) is coated on a charge generation layer (CGL), the charge generation material (CGM) in the CGL aggregates, and thereby the specific area of the CGM decreases. Therefore, the chance of contact of the charge transport material (CTM) with the CGM decreases. As a result thereof, the photo-carrier generation efficiency and the optical sensitivity of the photoreceptor deteriorate.

The particle diameter of the CGM is specified in the present application, and thereby the aggregation of the CGM can be prevented. Therefore, by using the present invention, a photoreceptor having good electrostatic properties can be produced even when the photoreceptor is prepared using a solvent other than halogen-containing solvents. The cited references are silent on production of a photoreceptor using a solvent other than halogen-containing solvents; the problems to be solved in the case where a solvent other than halogen-containing solvents is used; the mechanism of deterioration of the electrostatic properties caused when such a solvent is used; and the solution therefore.